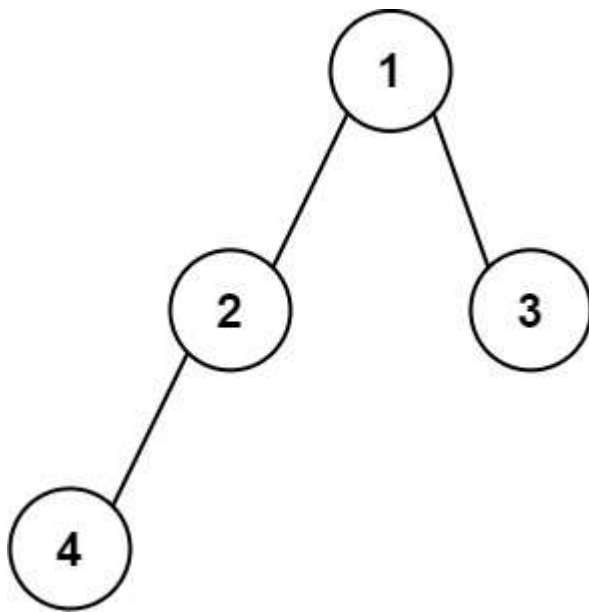


Construct String from Binary Tree [\(View\)](#)

Given the `root` of a binary tree, construct a string consisting of parenthesis and integers from a binary tree with the preorder traversal way, and return it.

Omit all the empty parenthesis pairs that do not affect the one-to-one mapping relationship between the string and the original binary tree.

Example 1:

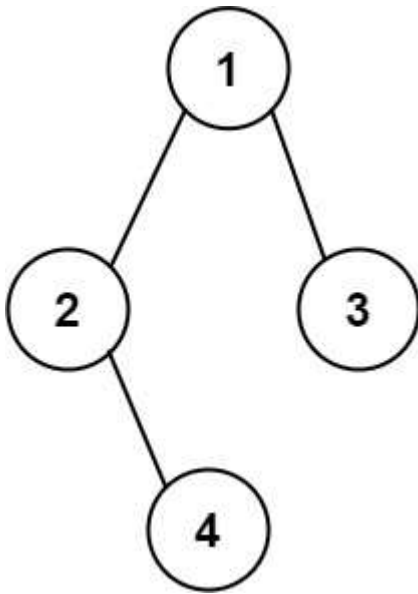


Input: `root = [1,2,3,4]`

Output: `"1(2(4))(3)"`

Explanation: Originally, it needs to be `"1(2(4)) (3())"`, but you need to omit all the unnecessary empty parenthesis pairs. And it will be `"1(2(4))(3)"`

Example 2:



Input: `root = [1,2,3,null,4]`

Output: `"1(2()(4))(3)"`

Explanation: Almost the same as the first example, except we cannot omit the first parenthesis pair to break the one-to-one mapping relationship between the input and the output.

Constraints:

- The number of nodes in the tree is in the range `[1, 104]`.
- `-1000 <= Node.val <= 1000`